

WHAT IS CLAIMED IS:

1. An opening and closing system for a power sliding door comprising:
 - a locking controller alternately transferring driving force of a handle to a door-closed state
 - 5 keeping unit and a door-open state keeping unit in order to control operation of the door-closed state keeping unit or door-open state keeping unit, said controller having a link for locking or releasing the door-open state keeping unit through a cable;
 - a means for detecting locking and releasing states of the door-open state keeping unit;
 - a driving means for switching the door-open state keeping unit into the locking state or the
 - 10 releasing state by operating the link; and
 - an ECU controlling a driving source, which opens or closes the sliding door, by receiving a signal from a door switch and controlling operation of the driving means by receiving a detecting signal regarding the locking state and the releasing state of the door-open state keeping unit from the detecting means.
- 15 2. The opening and closing system for a power sliding door as claimed in claim 1,
 - wherein the link is rotatably fixed to the housing about a hinge shaft and connected to the door-open state keeping unit through a cable, and the driving means is connected to one end of the link so as to rotate the link about the hinge shaft.
- 20 3. The opening and closing system for a power sliding door as claimed in claim 2,
 - wherein the driving means is an actuator having a driving end formed with an elongated hole, into

which a free end of the link is movably inserted.

4. The opening and closing system for a power sliding door as claimed in claim 1,
wherein the door-open state keeping unit includes a coupling link rotatably coupled with a
5 protrusion of a chassis member, and a locking link rotatably connected to the link through the cable
in order to lock or release a coupling state between the coupling link and the protrusion, and the
detecting means detects the locking and releasing states of the door-open state keeping unit
depending on a rotational position of the locking link.

10 5. The opening and closing system for a power sliding door as claimed in claim 4, wherein
the detecting means is a micro-switch, which is installed at one side of the locking link and makes
contact with the locking link in order to detect variation of the rotational position of the locking
link.

15 6. The opening and closing system for a power sliding door as claimed in claim 1,
wherein the ECU receives a door-close signal from the door switch when the sliding door is in a
door-open keeping state, the ECU releases the door-open state keeping unit by operating the
driving means if the door-open state keeping unit is in the locking state, and the ECU operates the
driving source to close the sliding door.

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